

STN SEARCH  
=> index bioscience medicine

#10/661,939

4/12/2006

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 18:05:00 ON 12 APR 2006

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=> s ((aldehyde(w)dehydrogenase) or cutE or adhE)

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12 FILE WATER

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33 FILE NAPRALERT  
35 FILE NLDB

63 FILES HAVE ONE OR MORE ANSWERS, 73 FILES SEARCHED IN STNINDEX

L1 QUE ((ALDEHYDE(W) DEHYDROGENASE) OR EUTE OR ADHE)

=> d rank

F1 5853 TOXCENTER  
F2 5744 CAPLUS  
F3 5140 GENBANK  
F4 4848 BIOSIS  
F5 4060 SCISEARCH  
F6 3748 MEDLINE  
F7 3735 EMBASE  
F8 2069 DGENE  
F9 1891 PASCAL  
F10 1781 USPATFULL  
F11 1262 ESBIODBASE  
F12 1239 BIOTECHNO  
F13 1091 LIFESCI  
F14 623 JICST-EPLUS  
F15 405 DRUGU  
F16 402 CABA  
F17 351 DDFU  
F18 325 BIOTECHABS  
F19 325 BIOTECHDS  
F20 283 WPIDS  
F21 283 WPINDEX  
F22 253 AGRICOLA  
F23 222 DISSABS  
F24 220 IFIPAT  
F25 182 BIOENG  
F26 167 CONFSCI  
F27 160 USPAT2  
F28 131 DDFB  
F29 131 DRUGB  
F30 109 NIOSHTIC

=> file f1-f2, f4-f7, f9-f14

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FILE 'JICST-EPLUS' ENTERED AT 18:07:38 ON 12 APR 2006  
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=> s L1  
L2 35875 L1

=> s (gene or sequence or polynucleotide or clone or recombinant)(s)L2  
9 FILES SEARCHED...  
L3 5705 (GENE OR SEQUENCE OR POLYNUCLEOTIDE OR CLONE OR RECOMBINANT)(S)  
L2

=> s ((coenzyme(w)A) or CoA)(s)L3  
8 FILES SEARCHED...  
L4 392 ((COENZYME(W) A) OR COA)(S) L3

=> s (microorganism or organism or bacteria or plant)(s)L4  
L5 37 (MICROORGANISM OR ORGANISM OR BACTERIA OR PLANT)(S) L4

=> dup rem L5  
PROCESSING COMPLETED FOR L5  
L6 27 DUP REM L5 (10 DUPLICATES REMOVED)

=> d ibib abs L6 1-27

L6 ANSWER 1 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2005:307703 USPATFULL  
TITLE: Materials and methods for the alteration of enzyme and  
acetyl CoA levels in plants  
INVENTOR(S): Nikolau, Basil J., Ames, IA, UNITED STATES  
Wurtele, Eve S., Ames, IA, UNITED STATES  
Oliver, David J., Ames, IA, UNITED STATES  
Behal, Robert, Moscow, ID, UNITED STATES  
Schnable, Patrick S., Ames, IA, UNITED STATES  
Ke, Jinshan, Foster City, CA, UNITED STATES  
Johnson, Jerry L., St. Paul, MN, UNITED STATES  
Allred, Carolyn C., Ames, IA, UNITED STATES  
Fatland, Beth, Ames, IA, UNITED STATES  
Lutziger, Isabelle, Ames, IA, UNITED STATES  
Wen, Tsui-Jung, Ames, IA, UNITED STATES  
PATENT ASSIGNEE(S): Iowa State University Research Foundation, Inc., Ames,  
IA, UNITED STATES (U.S. corporation)

NUMBER KIND DATE

-----  
PATENT INFORMATION: US 2005268352 A1 20051201  
APPLICATION INFO.: US 2005-167856 A1 20050627 (11)  
RELATED APPLN. INFO.: Division of Ser. No. US 2002-293865, filed on 13 Nov  
2002, GRANTED, Pat. No. US 6942994 Division of Ser. No.  
US 1999-344882, filed on 25 Jun 1999, GRANTED, Pat. No.  
US 6764851

NUMBER DATE

-----  
PRIORITY INFORMATION: US 1998-90717P 19980626 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: GARDNER CARTON & DOUGLAS LLP, ATTN: PATENT DOCKET

DEPT., 191 N. WACKER DRIVE, SUITE 3700, CHICAGO, IL,  
60606, US

NUMBER OF CLAIMS: 12

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 15 Drawing Page(s)

LINE COUNT: 3742

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides nucleic acid and amino acid sequences of acetyl \*\*\*CoA\*\*\* synthetase (ACS), plastidic pyruvate dehydrogenase (pPDH), ATP citrate lyase (ACL), Arabidopsis pyruvate decarboxylase (PDC), and Arabidopsis \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* (ALDH), specifically ALDH-2 and ALDH-4. The present invention also provides a \*\*\*recombinant\*\*\* vector comprising a nucleic acid \*\*\*sequence\*\*\* encoding one of the aforementioned enzymes, an antisense \*\*\*sequence\*\*\* thereto or a ribozyme therefor, a cell transformed with such a vector, antibodies to the enzymes, a \*\*\*plant\*\*\* cell, a \*\*\*plant\*\*\* tissue, a \*\*\*plant\*\*\* organ or a \*\*\*plant\*\*\* in which the level of an enzyme has been altered, and a method of producing such a \*\*\*plant\*\*\* cell, \*\*\*plant\*\*\* tissue, \*\*\*plant\*\*\* organ or \*\*\*plant\*\*\*. Desirably, alteration of the level of enzyme results in an alteration of the level of acetyl \*\*\*CoA\*\*\* in the \*\*\*plant\*\*\* cell, \*\*\*plant\*\*\* tissue, \*\*\*plant\*\*\* organ or \*\*\*plant\*\*\*. In addition, the present invention provides a \*\*\*recombinant\*\*\* vector comprising an antisense \*\*\*sequence\*\*\* of a nucleic acid \*\*\*sequence\*\*\* encoding pyruvate decarboxylase (PDC), the E1.alpha. subunit of pPDH, the E1.beta. subunit of pPDH, the E2 subunit of pPDH, mitochondrial pyruvate dehydrogenase (mtPDH) or \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* (ALDH) or a ribozyme that can cleave an RNA molecule encoding PDC, E1.alpha. pPDH, E1.beta. pPDH, E2 pPDH, mtPDH or ALDH.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 2 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2005:268097 USPATFULL

TITLE: Everminomicin biosynthetic genes

INVENTOR(S): Hosted, Thomas J., Summit, NJ, UNITED STATES

Wang, Tim X., Roselle Park, NJ, UNITED STATES

Horan, Ann C., Summit, NJ, UNITED STATES

PATENT ASSIGNEE(S): Schering Corporation (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2005233414 A1 20051020  
APPLICATION INFO.: US 2004-21825 A1 20041223 (11)  
RELATED APPLN. INFO.: Division of Ser. No. US 2001-758759, filed on 11 Jan  
2001, GRANTED, Pat. No. US 6861513

NUMBER DATE

PRIORITY INFORMATION: US 2000-175751P 20000112 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: SCHERING-PLOUGH CORPORATION, PATENT DEPARTMENT (K-6-1,  
1990), 2000 GALLOPING HILL ROAD, KENILWORTH, NJ,  
07033-0530, US

NUMBER OF CLAIMS: 12

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 128 Drawing Page(s)

LINE COUNT: 2345

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention is directed to nucleic acids which encode the proteins that direct the synthesis of the orthosomycin everminomicin and to use of the nucleic acids and proteins to produce compounds exhibiting antibiotic activity based on the everminomycin structure. The DNA sequence for the gene clusters responsible for encoding everminomicin biosynthetic genes, which provide the machinery for producing everminomicin, are provided. Thus, this invention provides the nucleic acid sequences needed to synthesize novel everminomicin-related

compounds based on everminomicin, arising from modifications of the DNA sequence designed to change glycosyl and modified orsellinic acid groups contained in everminomicin. A Micromonospora site-specific integrase gene is also provided, which can be incorporated in a vector for integration into any actinomycete, and, particularly into Monospora. Thus, the invention further provides methods for introducing heterologous genes into an actinomycete chromosome using this particular vector.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 3 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2005:254972 USPATFULL

TITLE: Alanine 2,3-aminomutase

INVENTOR(S): Liao, Hans H., Eden Prairie, MN, UNITED STATES

Gokarn, Ravi R., Minneapolis, MN, UNITED STATES

Gort, Steven J., Brooklyn Center, MN, UNITED STATES

Jessen, Holly J., Chanhassen, MN, UNITED STATES

Selifonova, Olga, Plymouth, MN, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2005221466 A1 20051006

APPLICATION INFO.: US 2003-502040 A1 20030117 (10)

WO 2003-US1635 20030117

20040719 PCT 371 date

NUMBER DATE

PRIORITY INFORMATION: US 2003-350727P 20020118 (60)

US 2003-375785P 20020425 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Scott Pribnow, Cargill Incorporated, Law Department,

15407 McGinty Road West, Wayzata, MN, 55391-5624, US

NUMBER OF CLAIMS: 107

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 4854

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Alanine 2,3-aminomutase sequences are disclosed, as are cells having alanine 2,3-aminomutase activity and methods of selecting for such cells. Methods for producing beta-alanine, pantothenate, 3-hydroxypropionic acid, as well as other organic compounds, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2005:177331 USPATFULL

TITLE: Metabolic engineering for improved xylose utilisation

of *Saccharomyces cerevisiae*

INVENTOR(S): Wahlbom, Fredrik, Malmo, SWEDEN

Sonderegger, Marco, Locarno, SWITZERLAND

Sauer, Uwe Erich, Zurich, SWITZERLAND

NUMBER KIND DATE

PATENT INFORMATION: US 2005153411 A1 20050714

APPLICATION INFO.: US 2004-945027 A1 20040920 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 2003-SE438, filed on 17 Mar 2003, UNKNOWN

NUMBER DATE

PRIORITY INFORMATION: SE 2002-857 20020319

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Gauthier & Connors LLP, Suite 3300, 225 Franklin

Street, Boston, MA, 02110, US

NUMBER OF CLAIMS: 14  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 5 Drawing Page(s)  
LINE COUNT: 1111

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a method for preparing an ethanol producing, xylose utilizing strain of *Saccharomyces cerevisiae* comprising genes for overexpression of xylose reductase, xylitol dehydrogenase and xylulokinase, wherein in addition to said genes for production of phosphoacetyltransferase, and acetaldehyde dehydrogenase are introduced and optionally overexpressed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 5 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2005:37499 USPATFULL

TITLE: Process for the fermentative preparation of L-amino acids using strains of the enterobacteriaceae family

INVENTOR(S): Rieping, Mechthild, Bielefeld, GERMANY, FEDERAL REPUBLIC OF

Siebelt, Nicole, Rietberg, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): DEGUSSA AG, Duesseldorf, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2005032178 A1 20050210  
APPLICATION INFO.: US 2003-616309 A1 20030710 (10)

NUMBER DATE

PRIORITY INFORMATION: DE 2002-10231115 20020710  
US 2002-395621P 20020715 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314

NUMBER OF CLAIMS: 20

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 978

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for the fermentive preparation of an L-amino acid, in particular L-threonine, comprising:

a) fermentation of a microorganism of the Enterobacteriaceae family which produces the desired L-amino acid and in which the *rseB* gene or nucleotide sequences which code for it is enhanced, in particular, over-expressed,

b) concentration of the desired L-amino acid in the medium or in the cells of the bacteria, and

c) isolation or recovery of the desired L-amino acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 27 PASCAL COPYRIGHT 2006 INIST-CNRS. ALL RIGHTS RESERVED.  
on STN DUPLICATE 1

ACCESSION NUMBER: 2006-0025020 PASCAL

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TITLE (IN ENGLISH): Minimal functions and physiological conditions required for growth of *Salmonella enterica* on ethanolamine in the absence of the metabolosome

AUTHOR: BRINSMAD Shaun R.; PALDON Tenzin; ESCALANTE-SEMERENA Jorge C.

CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin-Madison, Madison, Wisconsin, United States

SOURCE: Journal of bacteriology, (2005), 187(23), 8039-8046,

36 refs.

ISSN: 0021-9193 CODEN: JOBAAAY

DOCUMENT TYPE: Journal

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: United States

LANGUAGE: English

AVAILABILITY: INIST-2041, 354000121386250170

AN 2006-0025020 PASCAL

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AB During growth on ethanolamine, *Salmonella enterica* synthesizes a multimolecular structure that mimics the carboxysome used by some photosynthetic \*\*\*bacteria\*\*\* to fix CO<sub>2</sub>. In *S. enterica*, this carboxysome-like structure (hereafter referred to as the ethanolamine metabolosome) is thought to contain the enzymatic machinery needed to metabolize ethanolamine into acetyl coenzyme A (acetyl- \*\*\*CoA\*\*\*). Analysis of the growth behavior of mutant strains of *S. enterica* lacking specific functions encoded by the 17- \*\*\*gene\*\*\* ethanolamine utilization (eut) operon established the minimal biochemical functions needed by this bacterium to use ethanolamine as a source of carbon and energy. The data obtained support the conclusion that the ethanolamine ammonia-lyase (EAL) enzyme (encoded by the eutBC genes) and coenzyme B<sub>sub.1</sub> sub<sub>2</sub> are necessary and sufficient to grow on ethanolamine. We propose that the EutD phosphotransacetylase and EutG alcohol dehydrogenase are important to maintain metabolic balance. Glutathione (GSH) had a strong positive effect that compensated for the lack of the EAL reactivase EutA protein under aerobic growth on ethanolamine. Neither GSH nor EutA was needed during growth on ethanolamine under reduced-oxygen conditions. GSH also stimulated growth of a strain lacking the acetaldehyde dehydrogenase ( \*\*\*EutE\*\*\* ) enzyme. The role of GSH in ethanolamine catabolism is complex and requires further investigation. Our data show that the ethanolamine metabolosome is not involved in the biochemistry of ethanolamine catabolism. We propose the metabolosome is needed to concentrate low levels of ethanolamine catabolic enzymes, to keep the level of toxic acetaldehyde low, to generate enough acetyl- \*\*\*CoA\*\*\* to support cell growth, and to maintain a pool of free \*\*\*CoA\*\*\*.

L6 ANSWER 7 OF 27 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE

ACCESSION NUMBER: 2005180984 ESBIOBASE

TITLE: Global analysis of cellular factors and responses involved in *Pseudomonas aeruginosa* resistance to arsenite

AUTHOR: Parvatiyar K.; Alsabbagh E.M.; Ochsner U.A.; Stegemeyer M.A.; Smulian A.G.; Hwang S.H.; Jackson C.R.; McDermott T.R.; Hassett D.J.

CORPORATE SOURCE: D.J. Hassett, Department of Molecular Genetics, Biochemistry and Microbiology, University of Cincinnati College of Medicine, 231 Albert Sabin Way, Cincinnati, OH 45267-0524, United States.  
E-mail: Daniel.Hassett@UC.Edu

SOURCE: Journal of Bacteriology, (2005), 187/14 (4853-4864), 91 reference(s)  
CODEN: JOBAAAY ISSN: 0021-9193

DOCUMENT TYPE: Journal; Article

COUNTRY: United States

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The impact of arsenite [As(III)] on several levels of cellular metabolism and \*\*\*gene\*\*\* regulation was examined in *Pseudomonas aeruginosa*. *P. aeruginosa* isogenic mutants devoid of antioxidant enzymes or defective in various metabolic pathways, DNA repair systems, metal storage proteins, global regulators, or quorum sensing circuitry were examined for their sensitivity to As(III). Mutants lacking the As(III) translocator (ArsB), superoxide dismutase (SOD), catabolite repression control protein (Crc), or glutathione reductase (Gor) were more sensitive to As(III) than wild-type \*\*\*bacteria\*\*\*. The MICs of As(III) under aerobic conditions were 0.2, 0.3, 0.8, and 1.9 mM for *arsB*, *sodA*, *sodB*, *crc*, and *gor* mutants, respectively, and were 1.5- to 13-fold less than the MIC for the wild-type strain. A two-dimensional gel/matrix-assisted laser

desorption ionization-time of flight analysis of As(III)-treated wild-type \*\*\*bacteria\*\*\* showed significantly (> 40-fold) increased levels of a heat shock protein (IbpA) and a putative allo-threonine aldolase (GlyI). Smaller increases (up to 3.1-fold) in expression were observed for acetyl- \*\*\*coenzyme\*\*\* \*\*\*A\*\*\* acetyltransferase (AtoB), a probable \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* (KauB), ribosomal protein L25 (RplY), and the probable DNA-binding stress protein (PA0962). In contrast, decreased levels of a heme oxygenase (HemO/PigA) were found upon As(III) treatment. Isogenic mutants were successfully constructed for six of the eight genes encoding the aforementioned proteins. When treated with sublethal concentrations of As(III), each mutant revealed a marginal to significant lag period prior to resumption of apparent normal growth compared to that observed in the wild-type strain. Our results suggest that As(III) exposure results in an oxidative stress-like response in *P. aeruginosa*, although activities of classic oxidative stress enzymes are not increased. Instead, relief from As(III)-based oxidative stress is accomplished from the collective activities of ArsB, glutathione reductase, and the global regulator Crc. SOD appears to be involved, but its function may be in the protection of superoxide-sensitive sulfhydryl groups. Copyright .COPYRG. 2005, American Society for Microbiology. All Rights Reserved.

L6 ANSWER 8 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2004:299255 USPATFULL

TITLE: Process for the production of L-amino acids using strains of the enterobacteriaceae family

INVENTOR(S): Rieping, Mechthild, Bielefeld, GERMANY, FEDERAL REPUBLIC OF  
Farwick, Mike, Essen, GERMANY, FEDERAL REPUBLIC OF

NUMBER KIND DATE

PATENT INFORMATION: US 2004235122 A1 20041125

APPLICATION INFO.: US 2004-817431 A1 20040405 (10)

NUMBER DATE

PRIORITY INFORMATION: DE 2003-10316109 20030409

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: FITCH, EVEN, TABIN & FLANNERY, SUITE 401L, 1801 K STREET, NW, WASHINGTON, DC, 20006-1201

NUMBER OF CLAIMS: 20

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 1402

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a process for the production of L-amino acids by fermentation of recombinant microorganisms of the Enterobacteriaceae family, wherein

a) the yfiD ORF and/or the pflB gene or nucleotide sequences coding for the gene products are overexpressed in the microorganisms producing the desired L-amino acid, and the microorganisms are cultured in a medium under conditions in which the desired L-amino acid is enriched in the medium or in the cells; and

b) the desired L-amino acid is isolated, in a manner such that constituents of the fermentation broth and/or the biomass in its entirety or in portions (>0 to 100%) either remain in the isolated product or are completely removed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 9 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2004:273796 USPATFULL

TITLE: Process for the production of L-amino acids using strains of the enterobacteriaceae family

INVENTOR(S): Rieping, Mechthild, Bielefeld, GERMANY, FEDERAL REPUBLIC OF



NUMBER    KIND    DATE  
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PATENT INFORMATION: US 2004214294    A1    20041028  
APPLICATION INFO.: US 2004-812315    A1    20040330 (10)

NUMBER    DATE  
-----

PRIORITY INFORMATION: DE 2003-10314618    20030401  
DOCUMENT TYPE:        Utility  
FILE SEGMENT:        APPLICATION  
LEGAL REPRESENTATIVE: Michael A. Sanzo, Fitch, Even, Tabin & Flannery, Suite  
                                 401L, 1801 K Street, N.W., Washington, DC, 20006-1201

NUMBER OF CLAIMS:    12  
EXEMPLARY CLAIM:     1  
NUMBER OF DRAWINGS:   1 Drawing Page(s)  
LINE COUNT:           1023

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB    The invention provides a process for the production of L-amino acids, in particular L-threonine, in which the following steps are performed:

a) fermentation of microorganisms from the Enterobacteriaceae family, in which the galP gene or nucleotide sequences coding for the galp gene product are overexpressed and which produce the desired L-amino acid;

b) enrichment of the desired L-amino acid in the medium or in cells of the bacteria; and

c) isolation of the desired L-amino acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 10 OF 27 USPATFULL on STN  
ACCESSION NUMBER:    2004:139003 USPATFULL  
TITLE:                Polyhydroxyalkanoate production by coenzyme A-dependent aldehyde dehydrogenase pathways  
INVENTOR(S):         Skraly, Frank A., Somerville, MA, UNITED STATES  
PATENT ASSIGNEE(S):   Metabolix, Inc. (U.S. corporation)

NUMBER    KIND    DATE  
-----

PATENT INFORMATION: US 2004106176    A1    20040603  
APPLICATION INFO.: US 2003-661939    A1    20030912 (10)

NUMBER    DATE  
-----

PRIORITY INFORMATION: US 2002-410087P    20020912 (60)  
DOCUMENT TYPE:        Utility  
FILE SEGMENT:        APPLICATION  
LEGAL REPRESENTATIVE: PATREA L. PABST, HOLLAND & KNIGHT LLP, SUITE 2000, ONE ATLANTIC CENTER, 1201 WEST PEACHTREE STREET, N.E., ATLANTA, GA, 30309-3400

NUMBER OF CLAIMS:    38  
EXEMPLARY CLAIM:     1  
NUMBER OF DRAWINGS:   2 Drawing Page(s)  
LINE COUNT:           1101

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB    Organisms are provided containing genes encoding one or more enzymes, Coenzyme-A-dependent aldehyde dehydrogenase, acyl-CoA transferase, acyl-CoA synthetase, .beta.-ketothiolase, acetoacetyl-CoA reductase and/or PHA synthase. In some cases one or more of these genes are native to the host organism and the remainder are heterologous genes provided by genetic engineering. These organisms produce poly (3-hydroxyalkanoate) homopolymers or co-polymers comprising 3-hydroxyalkanoate monomers other than 3-hydroxybutyrate wherein these 3-hydroxyalkanoate units are derived from the enzyme-catalyzed conversion of alcohols to 3-hydroxyacyl-CoA monomers, where at least one step in the conversion pathway involves a Co-enzyme A-dependent aldehyde dehydrogenase activity. The PHA polymers are readily recovered and industrially useful as polymers for articles such as films, latexes,

coatings, adhesives, fibers, binders, resins, and medical devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 11 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2004:133296 USPATFULL  
TITLE: Eveminomycin biosynthetic genes  
INVENTOR(S): Hosted, Thomas J., Summit, NJ, UNITED STATES  
Wang, Tim X., Roselle Park, NJ, UNITED STATES  
Horan, Ann C., Summit, NJ, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2004101832 A1 20040527  
US 6861513 B2 20050301  
APPLICATION INFO.: US 2001-758759 A1 20010111 (9)

NUMBER DATE

PRIORITY INFORMATION: US 2000-175751P 20000112 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: SCHERING-PLOUGH CORPORATION, PATENT DEPARTMENT (K-6-1,  
1990), 2000 GALLOPING HILL ROAD, KENILWORTH, NJ,  
07033-0530  
NUMBER OF CLAIMS: 34  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 55 Drawing Page(s)  
LINE COUNT: 2396  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention is directed to nucleic acids which encode the proteins that direct the synthesis of the orthosomycin everminomycin and to use of the nucleic acids and proteins to produce compounds exhibiting antibiotic activity based on the everminomycin structure. The DNA sequence for the gene clusters responsible for encoding everminomycin biosynthetic genes, which provide the machinery for producing everminomycin, are provided. Thus, this invention provides the nucleic acid sequences needed to synthesize novel everminomycin-related compounds based on everminomycin, arising from modifications of the DNA sequence designed to change glycosyl and modified orsellinic acid groups contained in everminomycin. A. Micromonospora site-specific integrase gene is also provided, which can be incorporated in a vector for integration into any actinomycete, and, particularly into Monospora. Thus, the invention further provides methods for introducing heterologous genes into an actinomycete chromosome using this particular vector.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 12 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2004:50862 USPATFULL  
TITLE: Wound healing biomarkers  
INVENTOR(S): Burslem, Martyn Frank, Sandwich, UNITED KINGDOM  
Johnson, Claire Michelle, Sandwich, UNITED KINGDOM  
Cooper, Lisa, London, UNITED KINGDOM  
Martin, Paul, London, UNITED KINGDOM

NUMBER KIND DATE

PATENT INFORMATION: US 2004038292 A1 20040226  
APPLICATION INFO.: US 2002-175184 A1 20020618 (10)

NUMBER DATE

PRIORITY INFORMATION: GB 2001-14869 20010618  
US 2001-305346P 20010713 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN  
POINT ROAD, GROTON, CT, 06340

NUMBER OF CLAIMS: 19  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 26 Drawing Page(s)  
LINE COUNT: 67123

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides biomarkers such as genes and the corresponding mRNA transcripts or protein products that are identified as being involved in wound healing processes. Also provided are methods for identification of compounds useful for the treatment of wounds, wound healing disorders or inflammation and compounds identified by such methods. Methods are provided for monitoring the progress of wound healing and for identification of individuals with wound healing disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 13 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2004:12970 USPATFULL  
TITLE: Polynucleotides, materials incorporating them, and methods for using them  
INVENTOR(S): Glenn, Matthew, Whenuapai, NEW ZEALAND  
Havukkala, Ilkka J., Remuera, NEW ZEALAND  
Lubbers, Mark, Palmerston North, NEW ZEALAND  
Dekker, James, Palmerston North, NEW ZEALAND  
PATENT ASSIGNEE(S): GENESIS RESEARCH AND DEVELOPMENT CORP. LTD., Parnell, NEW ZEALAND (non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2004009490 A1 20040115  
APPLICATION INFO.: US 2002-264213 A1 20021003 (10)  
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-971536, filed on 2 Oct 2001, PENDING Continuation-in-part of Ser. No. US 2000-634238, filed on 8 Aug 2000, GRANTED, Pat. No. US 6544772

NUMBER DATE

PRIORITY INFORMATION: US 1999-147853P 19990809 (60)  
US 1999-147852P 19990809 (60)  
US 1999-152032P 19990901 (60)  
US 1999-152031P 19990901 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: SPECKMAN LAW GROUP, 1501 WESTERN AVE, SUITE 100, SEATTLE, WA, 98101  
NUMBER OF CLAIMS: 37  
EXEMPLARY CLAIM: 1  
LINE COUNT: 5375

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel polynucleotides isolated from Lactobacillus rhamnosus, as well as oligonucleotide probes and primers, genetic constructs comprising the polynucleotides, biological materials, including plants, microorganisms and multicellular organisms incorporating the polynucleotides, polypeptides expressed by the polynucleotides, and methods for using the polynucleotides and polypeptides are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 14 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2003:154422 USPATFULL  
TITLE: Materials and methods for the alteration of enzyme and acetyl CoA levels in plants  
INVENTOR(S): Nikolau, Basil J., Ames, IA, UNITED STATES  
Wurtele, Eve S., Ames, IA, UNITED STATES  
Oliver, David J., Ames, IA, UNITED STATES  
Behal, Robert, Ames, IA, UNITED STATES  
Schnable, Patrick S., Ames, IA, UNITED STATES  
Ke, Jinshan, Foster City, CA, UNITED STATES  
Johnson, Jerry L., St. Paul, MN, UNITED STATES

Allred, Carolyn C., Ames, IA, UNITED STATES  
Fatland, Beth, Ames, IA, UNITED STATES  
Lutziger, Isabelle, Ames, IA, UNITED STATES  
Wen, Tsui-Jung, Ames, IA, UNITED STATES  
PATENT ASSIGNEE(S): Iowa State University Research Foundation, Inc., Ames,  
IA (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2003106090 A1 20030605  
US 6942994 B2 20050913  
APPLICATION INFO.: US 2002-293865 A1 20021113 (10)  
RELATED APPLN. INFO.: Division of Ser. No. US 1999-344882, filed on 25 Jun  
1999, PENDING

NUMBER DATE

PRIORITY INFORMATION: US 1998-90717P 19980626 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: LEYDIG VOIT & MAYER, LTD, TWO PRUDENTIAL PLAZA, SUITE  
4900, 180 NORTH STETSON AVENUE, CHICAGO, IL, 60601-6780  
NUMBER OF CLAIMS: 16  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 15 Drawing Page(s)  
LINE COUNT: 3765

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides nucleic acid and amino acid sequences of  
acetyl \*\*\*CoA\*\*\* synthetase (ACS), plastidic pyruvate dehydrogenase  
(pPDH), ATP citrate lyase (ACL), Arabidopsis pyruvate decarboxylase  
(PDC), and Arabidopsis \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\*  
(ALDH), specifically ALDH-2 and ALDH-4. The present invention also  
provides a \*\*\*recombinant\*\*\* vector comprising a nucleic acid  
\*\*\*sequence\*\*\* encoding one of the aforementioned enzymes, an  
antisense \*\*\*sequence\*\*\* thereto or a ribozyme therefor, a cell  
transformed with such a vector, antibodies to the enzymes, a  
\*\*\*plant\*\*\* cell, a \*\*\*plant\*\*\* tissue, a \*\*\*plant\*\*\* organ or  
a \*\*\*plant\*\*\* in which the level of an enzyme has been altered, and  
a method of producing such a \*\*\*plant\*\*\* cell, \*\*\*plant\*\*\*  
tissue, \*\*\*plant\*\*\* organ or \*\*\*plant\*\*\*. Desirably, alteration  
of the level of enzyme results in an alteration of the level of acetyl  
\*\*\*CoA\*\*\* in the \*\*\*plant\*\*\* cell, \*\*\*plant\*\*\* tissue,  
\*\*\*plant\*\*\* organ or \*\*\*plant\*\*\*. In addition, the present  
invention provides a \*\*\*recombinant\*\*\* vector comprising an  
antisense \*\*\*sequence\*\*\* of a nucleic acid \*\*\*sequence\*\*\*  
encoding pyruvate decarboxylase (PDC), the E1.alpha. subunit of pPDH,  
the E1.beta. subunit of pPDH, the E2 subunit of pPDH, mitochondrial  
pyruvate dehydrogenase (mtPDH) or \*\*\*aldehyde\*\*\*  
\*\*\*dehydrogenase\*\*\* (ALDH) or a ribozyme that can cleave an RNA  
molecule encoding PDC, E1.alpha. pPDH, E1.beta. pPDH, E2 pPDH, mtPDH or  
ALDH.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 15 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2003:222015 USPATFULL  
TITLE: Compositions for the detection of blood cell and  
immunological response gene expression  
INVENTOR(S): Cocks, Benjamin G., Sunnyvale, CA, United States  
Stuart, Susan G., Montara, CA, United States  
Seilhamer, Jeffrey J., Los Altos Hills, CA, United  
States  
PATENT ASSIGNEE(S): Incyte Corporation, Palo Alto, CA, United States (U.S.  
corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6607879 B1 20030819  
APPLICATION INFO.: US 1998-23655 19980209 (9)  
DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Marschel, Ardin H.  
LEGAL REPRESENTATIVE: Incyte Corporation  
NUMBER OF CLAIMS: 7  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)  
LINE COUNT: 3719

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a composition comprising a plurality of polynucleotide probes. The composition can be used as hybridizable array elements in a microarray. The present invention also relates to a method for selecting polynucleotide probes for the composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 16 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2003:108972 USPATFULL

TITLE: Nucleic acid and amino acid sequences relating to  
pseudomonas aeruginosa for diagnostics and therapeutics

INVENTOR(S): Rubenfield, Marc J., Framingham, MA, United States  
Nolling, Jork, Quincy, MA, United States  
Deloughery, Craig, Medford, MA, United States  
Bush, David, Somerville, MA, United States

PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6551795 B1 20030422  
APPLICATION INFO.: US 1999-252991 19990218 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1998-74788P 19980218 (60)  
US 1998-94190P 19980727 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Allen, Marianne P.

LEGAL REPRESENTATIVE: Burns, Doane, Swecker & Mathis, L.L.P.

NUMBER OF CLAIMS: 26

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 21431

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences derived from *Pseudomonas aeruginosa* that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 17 OF 27 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V.  
on STN DUPLICATE

ACCESSION NUMBER: 2003049833 ESBIOBASE

TITLE: Specialization of function among aldehyde  
dehydrogenases: The ALD2 and ALD3 genes are required  
for .beta.-alanine biosynthesis in *Saccharomyces*  
*cerevisiae*

AUTHOR: White W.H.; Skatrud P.L.; Xue Z.; Toyn J.H.

CORPORATE SOURCE: J.H. Toyn, Department of Chemical Enzymology,  
Bristol-Myers Squibb, Experimental Station,  
Wilmington, DE 19880, United States.  
E-mail: jeremy.toyn@bms.com

SOURCE: Genetics, (01 JAN 2003), 163/1 (69-77), 24  
reference(s)

CODEN: GENTAE ISSN: 0016-6731

DOCUMENT TYPE: Journal; Article

COUNTRY: United States

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The amino acid .beta.-alanine is an intermediate in pantothenic acid (vitamin B.sub.5) and \*\*\*coenzyme\*\*\* \*\*\*A\*\*\* ( \*\*\*CoA\*\*\* ) biosynthesis. In contrast to \*\*\*bacteria\*\*\* , yeast derive the .beta.-alanine required for pantothenic acid production via polyamine metabolism, mediated by the four SPE genes and by the FAD-dependent amine oxidase encoded by FMS1. Because amine oxidases generally produce aldehyde derivatives of amine compounds, we propose that an additional \*\*\*aldehyde\*\*\* - \*\*\*dehydrogenase\*\*\* -mediated step is required to make .beta.-alanine from the precursor aldehyde, 3-aminopropanal. This study presents evidence that the closely related \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* genes ALD2 and ALD3 are required for pantothenic acid biosynthesis via conversion of 3-aminopropanal to .beta.-alanine in vivo. While deletion of the nuclear \*\*\*gene\*\*\* encoding the unrelated mitochondrial Ald5p resulted in an enhanced requirement for pantothenic acid pathway metabolites, we found no evidence to indicate that the Ald5p functions directly in the conversion of 3-aminopropanal to .beta.-alanine. Thus, in *Saccharomyces cerevisiae*, ALD2 and ALD3 are specialized for .beta.-alanine biosynthesis and are consequently involved in the cellular biosynthesis of \*\*\*coenzyme\*\*\* \*\*\*A\*\*\* .

L6 ANSWER 18 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2002:294686 USPATFULL

TITLE: Production of polyhydroxyalkanoates from polyols

INVENTOR(S): Skraly, Frank A., Cambridge, MA, UNITED STATES  
Sholl, Martha, Haverhill, MA, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2002164729 A1 20021107

APPLICATION INFO.: US 2001-909574 A1 20010720 (9)

NUMBER DATE

PRIORITY INFORMATION: US 2000-219995P 20000721 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: PATREA L. PABST, HOLLAND & KNIGHT LLP, SUITE 2000, ONE  
ATLANTIC CENTER, 1201 WEST PEACHTREE STREET, N.E.,  
ATLANTA, GA, 30309-3400

NUMBER OF CLAIMS: 21

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 779

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Recombinant processes are provided whereby additional genes are introduced into *E. coli* which have been genetically engineered to produce PHA so that the improved strains produce PHA homopolymers and copolymers directly from diols. In preferred embodiments, PHAs containing 4-hydroxybutyrate monomers are produced directly from 1,4-butanediol; PHAs containing 5-hydroxyvalerate are produced from 1,5-pentanediol; PHAs containing 6-hydroxyhexanoate (6HH) are produced from 1,6-hexanediol; PHAs containing 3-hydroxypropionate are produced from 1,3-propanediol; PHAs containing 2-hydroxypropionate (lactate) are produced from 1,2-propanediol (propylene glycol); PHAs containing 2-hydroxyethanoate (glycolate) are produced from 1,2-ethanediol (ethylene glycol). Genes encoding these same enzyme activities can be introduced or their expression amplified in wild type PHA producers to improve the production of PHA homopolymers and copolymers directly from diol and other alcohol feedstocks. The PHA polymers are readily recovered and industrially useful as polymers or as starting materials for a range of chemical intermediates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 19 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2002:289256 USPATFULL

TITLE: MATERIALS AND METHODS FOR THE ALTERATION OF ENZYME AND  
ACETYL COA LEVELS IN PLANTS

INVENTOR(S): NIKOLAU, BASIL J., AMES, IA, UNITED STATES  
WURTELE, EVE S., AMES, IA, UNITED STATES  
OLIVER, DAVID J., AMES, IA, UNITED STATES  
BEHAL, ROBERT, AMES, IA, UNITED STATES  
SCHNABLE, PATRICK S., AMES, IA, UNITED STATES  
KE, JINSHAN, AMES, IA, UNITED STATES  
JOHNSON, JERRY L., ST. PAUL, MN, UNITED STATES  
ALLRED, CAROLYN C., AMES, IA, UNITED STATES  
FATLAND, BETH, AMES, IA, UNITED STATES  
LUTZIGER, ISABELLE, AMES, IA, UNITED STATES  
WEN, TSUI-JUNG, AMES, IA, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2002162137 A1 20021031  
US 6764851 B2 20040720  
APPLICATION INFO.: US 1999-344882 A1 19990625 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1998-90717P 19980626 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: LEYDIG, VOIT& MAYER, TWO PRUDENTIAL PLAZA SUITE 4900,  
180 NORTH STETSON, CHICAGO, IL, 606016780  
NUMBER OF CLAIMS: 97  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 20 Drawing Page(s)  
LINE COUNT: 2530  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides nucleic acid and amino acid sequences of acetyl \*\*\*CoA\*\*\* synthetase (ACS), plastidic pyruvate dehydrogenase (pPDH), ATP citrate lyase (ACL), Arabidopsis pyruvate decarboxylase (PDC), and Arabidopsis \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* (ALDH), specifically ALDH-2 and ALDH-4. The present invention also provides a \*\*\*recombinant\*\*\* vector comprising a nucleic acid \*\*\*sequence\*\*\* encoding one of the aforementioned enzymes, an antisense \*\*\*sequence\*\*\* thereto or a ribozyme therefor, a cell transformed with such a vector, antibodies to the enzymes, a \*\*\*plant\*\*\* cell, a \*\*\*plant\*\*\* tissue, a \*\*\*plant\*\*\* organ or a \*\*\*plant\*\*\* in which the level of an enzyme has been altered, and a method of producing such a \*\*\*plant\*\*\* cell, \*\*\*plant\*\*\* tissue, \*\*\*plant\*\*\* organ or \*\*\*plant\*\*\*. Desirably, alteration of the level of enzyme results in an alteration of the level of acetyl \*\*\*CoA\*\*\* in the \*\*\*plant\*\*\* cell, \*\*\*plant\*\*\* tissue, \*\*\*plant\*\*\* organ or \*\*\*plant\*\*\*. In addition, the present invention provides a \*\*\*recombinant\*\*\* vector comprising an antisense \*\*\*sequence\*\*\* of a nucleic acid \*\*\*sequence\*\*\* encoding pyruvate decarboxylase (PDC), the E1.alpha. subunit of pPDH, the E1.beta. subunit of pPDH, the E2 subunit of pPDH, mitochondrial pyruvate dehydrogenase (mtPDH) or \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* (ALDH) or a ribozyme that can cleave an RNA molecule encoding PDC, E1.alpha. pPDH, E1.beta. pPDH, E2 pPDH, mtPDH or ALDH.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 20 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2002:73349 USPATFULL  
TITLE: Expressed sequences of arabidopsis thaliana  
INVENTOR(S): Gorlach, Jom, Durham, NC, UNITED STATES  
An, Yong-Qiang, San Diego, CA, UNITED STATES  
Hamilton, Carol M., Apex, NC, UNITED STATES  
Price, Jennifer L., Raleigh, NC, UNITED STATES  
Raines, Tracy M., Durham, NC, UNITED STATES  
Yu, Yang, Martinsville, NJ, UNITED STATES  
Rameaka, Joshua G., Durham, NC, UNITED STATES  
Page, Amy, Durham, NC, UNITED STATES  
Mathew, Abraham V., Cary, NC, UNITED STATES  
Ledford, Brooke L., Holly Springs, NC, UNITED STATES

NUMBER	KIND	DATE
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NUMBER      DATE

**CAS INDEXING IS AVAILABLE FOR THIS PATENT.**

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

NUMBER	KIND	DATE
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NUMBER      DATE

PRIORITY INFORMATION: US 2000-178502P 20000127 (60)



DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: PARADIGM GENETICS, INC, 104 ALEXANDER DRIVE, BUILDING  
2, P O BOX 14528, RTP, NC, 277094528  
NUMBER OF CLAIMS: 27  
EXEMPLARY CLAIM: 1  
LINE COUNT: 3845

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Isolated nucleotide compositions and sequences are provided for  
Arabidopsis thaliana genes. The nucleic acid compositions find use in  
identifying homologous or related genes; in producing compositions that  
modulate the expression or function of its encoded protein, mapping  
functional regions of the protein; and in studying associated  
physiological pathways. The genetic sequences may also be used for the  
genetic manipulation of cells, particularly of plant cells. The encoded  
gene products and modified organisms are useful for screening of  
biologically active agents, e.g. fungicides, insecticides, etc.; for  
elucidating biochemical pathways; and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 22 OF 27 USPATFULL on STN  
ACCESSION NUMBER: 2002:291078 USPATFULL  
TITLE: Polynucleotides and polypeptides derived from corn ear  
INVENTOR(S): Lalgudi, Raghunath V., Clayton, MO, United States  
Ito, Laura Y., Pleasanton, CA, United States  
Sherman, Bradley K., Oakland, CA, United States  
PATENT ASSIGNEE(S): Incyte Genomics, Inc., Palo Alto, CA, United States  
(U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6476212 B1 20021105  
APPLICATION INFO.: US 1999-313294 19990514 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1998-86722P 19980526 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Brusca, John S.  
ASSISTANT EXAMINER: Moran, Marjorie A.  
LEGAL REPRESENTATIVE: Incyte Genomics, Inc., Murry, Lynn E.  
NUMBER OF CLAIMS: 5  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)  
LINE COUNT: 23084

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides purified, corn ear-derived  
polynucleotides (cdps) which encode corn ear-derived polypeptides  
(CDPs). The invention also provides for the use of cdps or their  
complements, oligonucleotides, or fragments in methods for determining  
altered gene expression, to recover regulatory elements, and to follow  
inheritance of desirable characteristics through hybrid breeding  
programs. The invention further provides for vectors and host cells  
containing cdps for the expression of CDPs. The invention additionally  
provides for (i) use of isolated and purified CDPs to induce antibodies  
and to screen libraries of compounds and (ii) use of anti-CDP antibodies  
in diagnostic assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2001:634531 CAPLUS  
DOCUMENT NUMBER: 136:258038  
TITLE: Analysis of the chromosome sequence of the legume  
symbiont Sinorhizobium meliloti strain 1021  
AUTHOR(S): Capela, Delphine; Barloy-Hubler, Frederique; Gouzy,  
Jerome; Bothe, Gordana; Ampe, Frederic; Batut,  
Jacques; Boistard, Pierre; Becker, Anke; Boutry, Marc;

Cadieu, Edouard; Dreano, Stephane; Gloux, Stephanie;  
Godrie, Therese; Goffeau, Andre; Kahn, Daniel; Kiss,  
Erno; Lelaure, Valerie; Masuy, David; Pohl, Thomas;  
Portetelle, Daniel; Puhler, Alfred; Purnelle,  
Benedicte; Ramsperger, Ulf; Renard, Clotilde;  
Thebault, Patricia; Vandenbol, Micheline; Weidner,  
Stefan; Galibert, Francis

CORPORATE SOURCE: Laboratoire de Biologie Moleculaire des Relations  
Plantes-Microorganismes, Unite Mixte de Recherche  
(UMR) 215 Centre National de la Recherche Scientifique  
(CNRS), Institut National de la Recherche Agronomique,  
Chemin, Tolosan, F-31326, Fr.

SOURCE: Proceedings of the National Academy of Sciences of the  
United States of America (2001), 98(17), 9877-9882  
CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB *Sinorhizobium meliloti* is an .alpha.-proteobacterium that forms  
agronomically important N<sub>2</sub>-fixing root nodules in legumes. We report here  
the complete sequence of the largest constituent of its genome, a 62.7%  
GC-rich 3654,135-bp circular chromosome. Annotation allowed assignment of  
a function to 59% of the 3341 predicted protein-coding ORFs, the rest  
exhibiting partial, weak, or no similarity with any known sequence.  
Unexpectedly, the level of reiteration within this replicon is low, with  
only two genes duplicated with more than 90% nucleotide sequence identity,  
transposon elements accounting for 2.2% of the sequence, and a few hundred  
short repeated palindromic motifs (RIME1, RIME2, and C) widespread over  
the chromosome. Three regions with a significantly lower GC content are  
most likely of external origin. Detailed annotation revealed that this  
replicon contains all housekeeping genes except two essential genes that  
are located on pSymB. Amino acid/peptide transport and degradn. and sugar  
metab. appear as two major features of the *S. meliloti* chromosome. The  
presence in this replicon of a large no. of nucleotide cyclases with a  
peculiar structure, as well as of genes homologous to virulence  
determinants of animal and plant pathogens, opens perspectives in the  
study of this bacterium both as a free-living soil microorganism and as a  
plant symbiont.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 24 OF 27 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V.  
on STN DUPLICATE

ACCESSION NUMBER: 1997114268 ESBIOBASE

TITLE: p-cymene catabolic pathway in *Pseudomonas putida* F1:  
Cloning and characterization of DNA encoding  
conversion of p-cymene to p-cumate

AUTHOR: Eaton R.W.

CORPORATE SOURCE: R.W. Eaton, NHEERL, Gulf Ecology Division, U.S.  
Environmental Protection Agency, Gulf Breeze, FL  
32561, United States.  
E-mail: eaton.richard@epamail.epa.gov

SOURCE: Journal of Bacteriology, (1997), 179/10 (3171-3180),  
93 reference(s)  
CODEN: JOBAAY ISSN: 0021-9193

DOCUMENT TYPE: Journal; Article

COUNTRY: United States

LANGUAGE: English

SUMMARY LANGUAGE: English

AB *Pseudomonas putida* F1 utilizes p-cymene (p-isopropyltoluene) by an 11-  
step pathway through p-cumate (p-isopropylbenzoate) to isobutyrate,  
pyruvate, and acetyl \*\*\*coenzyme\*\*\* \*\*\*A\*\*\*. The cym operon,  
encoding the conversion of p-cymene to p-cumate, is located just upstream  
of the cmt operon, which encodes the further catabolism of p-cumate and  
is located, in turn, upstream of the tod (toluene catabolism) operon in  
*P. putida* F1. The sequences of an 11,236-bp DNA segment carrying the cym  
operon and a 915-bp DNA segment completing the \*\*\*sequence\*\*\* of the  
2,673-bp DNA segment separating the cmt and tod operons have been  
determined and are discussed here. The cym operon contains six genes in  
the order cymBCAaAbDE. The \*\*\*gene\*\*\* products have been identified

both by functional assays and by comparing deduced amino acid sequences to published sequences. Thus, *cymAa* and *cymAb* encode the two components of p-cymene monooxygenase, a hydroxylase and a reductase, respectively; *cymB* encodes p-cumic alcohol dehydrogenase; *cymC* encodes p-cumic \*\*\*aldehyde\*\*\* dehydrogenase\*\*\*; *cymD* encodes a putative outer membrane protein related to \*\*\*gene\*\*\* products of other aromatic hydrocarbon catabolic operons, but having an unknown function in p-cymene catabolism; and *cyme* encodes an acetyl \*\*\*coenzyme\*\*\* \*\*\*A\*\*\* synthetase whose role in this pathway is also unknown. Upstream of the *cym* operon is a regulatory \*\*\*gene\*\*\*, *cymR*. By using \*\*\*recombinant\*\*\* \*\*\*bacteria\*\*\* carrying either the operator-promoter region of the *cym* operon or the *cmt* operon upstream of genes encoding readily assayed enzymes, in the presence or absence of *cymR*, it was demonstrated that *cymR* encodes a repressor which controls expression of both the *cym* and *cmt* operons and is inducible by p-cumate but not p-cymene. Short (less than 350 bp) homologous DNA segments that are located upstream of *cymR* and between the *cmt* and *tod* operons may have been involved in recombination events that led to the current arrangement of *cym*, *cmt*, and *rod* genes in *P. putida* F1.

L6 ANSWER 25 OF 27 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V.  
on STN DUPLICATE

ACCESSION NUMBER: 1996086623 ESBIOBASE

TITLE: Complementation of an *Escherichia coli* *adhE* mutant by the *Entamoeba histolytica* *EhADH2* gene provides a method for the identification of new antiamebic drugs

AUTHOR: Yong T.-S.; Li E.; Clark D.; Stanley S.L. Jr.

CORPORATE SOURCE: T.-S. Yong, Department of Medicine, Washington Univ. School of Medicine, St. Louis, MO 63110, United States.

SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1996), 93/13 (6464-6469)  
CODEN: PNAS6 ISSN: 0027-8424

DOCUMENT TYPE: Journal; Article

COUNTRY: United States

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The pathogenic protozoan parasite *Entamoeba histolytica*, the cause of amebic dysentery and amebic liver abscess, is an obligate anaerobe, and derives energy from the fermentation of glucose to ethanol with pyruvate and acetyl \*\*\*coenzyme\*\*\* \*\*\*A\*\*\* as intermediates. We have isolated *EhADH2*, a key enzyme in this pathway, that is a NAD<sup>sup.+</sup>- and Fe<sup>sup.2</sup>.sup.+ dependent bifunctional enzyme with acetaldehyde dehydrogenase and alcohol dehydrogenase activities. *EhADH2* is the only known eukaryotic member of a newly defined family of prokaryotic multifunctional enzymes, which includes the *Escherichia coli* \*\*\*AdhE\*\*\* enzyme, an enzyme required for anaerobic growth of *E. coli*. Because of the critical role of *EhADH2* in the amebic fermentation pathway and the lack of known eukaryotic homologues of the *EhADH2* enzyme, *EhADH2* represents a potential target for antiamebic chemotherapy. However, screening of compounds for antiamebic activity is hampered by the cost of large scale growth of *Ent. histolytica*, and difficulties in quantitating drug efficacy in vitro. To approach this problem, we expressed the *EhADH2* \*\*\*gene\*\*\* in a mutant strain of *E. coli* carrying a deletion of the \*\*\*adhE\*\*\* \*\*\*gene\*\*\*. Expression of *EhADH2* restored the ability of the mutant *E. coli* strain to grow under anaerobic conditions. By screening compounds for the ability to inhibit the anaerobic growth of the *E. coli/EhADH2* strain, we have developed a rapid assay for identifying compounds with anti-*EhADH2* activity. Using \*\*\*bacteria\*\*\* to bypass the need for parasite culture in the initial screening process for anti-parasitic agents could greatly simplify and reduce the cost of identifying new therapeutic agents effective against parasitic diseases.

L6 ANSWER 26 OF 27 PASCAL COPYRIGHT 2006 INIST-CNRS. ALL RIGHTS RESERVED.  
on STN DUPLICATE 6

ACCESSION NUMBER: 1995-0595072 PASCAL

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TITLE (IN ENGLISH): Alcohol dehydrogenase : multiplicity and relatedness in the solvent-producing clostridia

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SOURCE: FEMS microbiology reviews, (1995), 17(3), 263-273, 44

refs.  
Conference: Meeting on solventogenic clostridia,  
Evanston IL (United States), 1994  
ISSN: 0168-6445

DOCUMENT TYPE: Journal; Conference

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: Netherlands

LANGUAGE: English

AVAILABILITY: INIST-17567D, 354000050346820050

AN 1995-0595072 PASCAL

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AB Alcohol dehydrogenase (ADH) is a key enzyme for the production of  
butanol, ethanol, and isopropanol by the solvent-producing clostridia.  
Initial studies of ADH in extracts of several strains of Clostridium  
acetobutylicum and C. beijerinckii gave conflicting molecular properties.  
A more coherent picture has emerged because of the following results :  
(i) identification of ADHs with different coenzyme specificities in these  
species ; (ii) discovery of structurally conserved ADHs (type 3) in three  
solvent-producing species ; (iii) isolation of mutants with deficiencies  
in butanol production and restoration of butanol production with a cloned  
alcohol/ \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* \*\*\*gene\*\*\* ; and  
(iv) resolution of various 'C. acetobutylicum' cultures into four  
species. The three ADH isozymes of C. beijerinckii NRRL B592 have high  
\*\*\*sequence\*\*\* similarities to ADH-1 of Clostridium sp. NCP 262  
(formerly C. acetobutylicum P262) and to the ADH domain of the alcohol/  
\*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* of C. acetobutylicum ATCC  
824/DSM 792. The NADH-dependent activity of the ADHs from C. beijerinckii  
NRRL B592 and the BDHs from C. acetobutylicum ATCC 824 is profoundly  
affected by the pH of the assay, and the relative importance of NADH and  
NADPH to butanol production may be misappraised when NAD(P)H-dependent  
activities were measured at different pH values. The primary/secondary  
ADH of isopropanol-producing C. beijerinckii is a type-1 enzyme and is  
highly conserved in Thermoanaerobacter brockii (formerly Thermoanaerobium  
brockii) and Entamoeba histolytica. Several solvent-forming enzymes  
(primary ADH, \*\*\*aldehyde\*\*\* \*\*\*dehydrogenase\*\*\* , and  
3-hydroxybutyryl- \*\*\*CoA\*\*\* dehydrogenase) are very similar between C.  
beijerinckii and the species represented by Clostridium sp. NCP 262 and  
NRRL B643. The realization of such relationships will facilitate the  
elucidation of the roles of different ADHs because each type of ADH can  
now be studied in an \*\*\*organism\*\*\* most amenable to experimental  
manipulations.

L6 ANSWER 27 OF 27 USPATFULL on STN

ACCESSION NUMBER: 93:3484 USPATFULL

TITLE: Process for the production of proteins or  
protein-containing gene products

INVENTOR(S): Wolf, Dieter H., Gundelfingen, Germany, Federal  
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PATENT ASSIGNEE(S): Boehringer Mannheim GmbH, Mannheim-Waldhof, Germany,  
Federal Republic of (non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 5179003 19930112  
APPLICATION INFO.: US 1989-293502 19890104 (7)

NUMBER DATE

PRIORITY INFORMATION: DE 1988-3800134 19880105

DE 1988-3804890 19880217

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Wax, Robert A.

ASSISTANT EXAMINER: Moore, William W.

LEGAL REPRESENTATIVE: Felfe & Lynch

NUMBER OF CLAIMS: 11

EXEMPLARY CLAIM: 1

LINE COUNT: 600

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a process for the production of proteins or protein-containing gene products by transformation of eukaryotic host cells with a recombinant DNA molecule containing the gene for the desired protein, culturing the cells and isolating the gene product after expression, wherein, as host cells, there is used a yeast strain which is deficient in proteases A and B.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

L1 QUE ((ALDEHYDE(W) DEHYDROGENASE) OR EUTE OR ADHE)

FILE \*TOXCENTER, CAPLUS, BIOSIS, SCISEARCH, MEDLINE, EMBASE, PASCAL, USPATFULL, ESBIODASE, BIOTECHNO, LIFESCI, JICST-EPLUS' ENTERED AT 18:07:38 ON 12 APR 2006

L2 35875 S L1

L3 5705 S (GENE OR SEQUENCE OR POLYNUCLEOTIDE OR CLONE OR RECOMBINANT)(

L4 392 S ((COENZYME(W)A) OR COA)(S)L3

L5 37 S (MICROORGANISM OR ORGANISM OR BACTERIA OR PLANT)(S)L4

L6 27 DUP REM L5 (10 DUPLICATES REMOVED)

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